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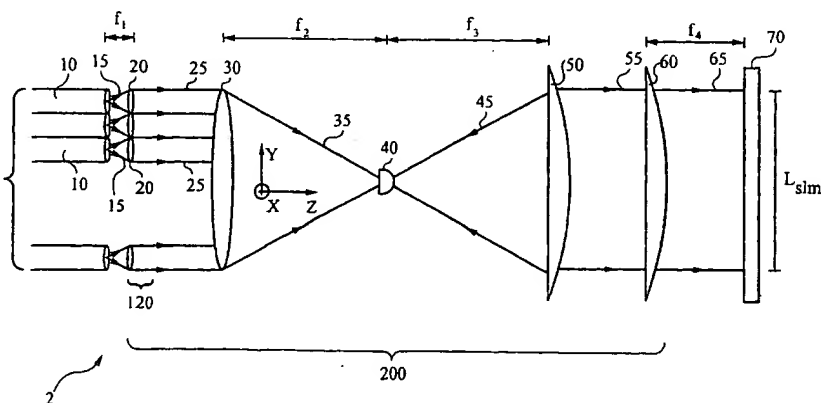
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(54) Title: AN ILLUMINATION SYSTEM FOR ONE-DIMENSIONAL SPATIAL LIGHT MODULATORS EMPLOYING MULTIPLE LIGHT SOURCES



(57) Abstract: The present invention is directed to illuminating a one-dimensional spatial light modulator (70) using an illumination system employing multiple light sources (10). The illumination system comprises a parallel array of light sources which provides a plurality of light outputs to an optical train (200). The optical train effectively combines the light sources into a single light source. The single light source provides a single light output for uniformly illuminating the spatial light modulator. The optical train includes a first optical train for receiving the light outputs from each light source, magnifying each light output, and overlaying each of the light outputs to form a single real magnified image. A mode conversion lens receives the single real magnified image, converts a mode profile of the single real magnified image into a top hat mode profile, and outputs a diverging light beam with a top hat mode profile. A second optical train shapes the light beam into an appropriate spatial geometry in such a manner that the light beam effectively illuminates the entire spatial light modulator, and directs the light beam onto the spatial modulator.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
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